

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0124761; AI 93885; PER20090001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Wastewater Treatment Utilities, Inc
 Manchac Place
 17188 Airline Highway, Suite M-157
 Prairieville, LA 70769
- II. **PREPARED BY:** Rachel Davis
- DATE PREPARED:** October 7, 2009
- III. **PERMIT ACTION:** reissue LPDES permit LA0124761, AI 93885; PER20090001

LPDES application received: June 18, 2009

EPA has not retained enforcement authority.

LPDES permit LAG570282 issued: December 29, 2004

LPDES permit LAG570282 expired: March 14, 2009

*The previous permit is a Class IV general permit. The facility's flow has reached over 100,000 GPD, therefore the previous Class IV general permit LAG570282 will be terminated upon the issuance of this permit.

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a privately owned treatment works serving the Manchac Place Subdivision.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located at 18139 Manchac Place Drive in Prairieville, Ascension Parish.
- D. The treatment facility consists of an extended air sewage treatment plant with chlorine disinfection.
- E. Outfall 001

Discharge Location: Latitude 30° 19' 13" North
 Longitude 90° 0' 8" West

Description: treated sanitary wastewater

Expected Flow: 385 homes x 400 gallons/day/home = 0.154 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

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Type of Flow Measurement which the facility is currently using:
Stopwatch and Bucket

V. RECEIVING WATERS:

The discharge is into a parish drainage ditch, thence into Bluff Swamp in segment 040201 of the Lake Pontchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040201 of the Lake Pontchartrain Basin are as indicated in the table below^{1/}:

Degree of Support of Each Use						
Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Not Supported	Not Supported	Not Supported	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 040201 of the Lake Pontchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040201 of the Lake Pontchartrain Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 28, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

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Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Rachel Davis
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Final Effluent Limits:

Subsegment 040201, Bayou Manchac – Headwaters to Amite River, is listed on LDEQ's Final 2006 303(d) List as impaired for ammonia (total ammonia), phosphorus, nitrogen (nitrate + nitrite as N), organic enrichment/low DO, pathogen indicators, chlorides, sulfates and total dissolved solids. To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL.

Phosphorus, Nitrogen (nitrate + nitrite as N), and Ammonia

The discharge from this facility is into an unnamed ditch, thence into the Bluff Swamp. Due to the size, nature, distance, and effluent pathway, the Department believes that the limitations established in this permit will be sufficient to keep the discharge from further causing or contributing to the phosphorus, nitrogen and ammonia impairments of Bayou Manchac. A report parameter has been placed in the permit to monitor the phosphorus, nitrogen and ammonia levels.

Organic Enrichment/Low DO

To protect against the potential for oxygen consuming pollutants that could cause instream DO problems, and for the discharges of organic materials and nutrients at levels exceeding state water quality standards, CBOD₅ limitations have been established in the permit.

Pathogen Indicators

To protect the receiving waterbody against high levels of pathogenic organisms, fecal coliform limitations have been established in the permit

TDS, Chlorides and Sulfates

Based on the size and nature of this facility, the department believes that there is little potential for the discharges to cause or contribute to the TDS, chlorides and sulfates impairments of this subsegment. Therefore, no limitations for chlorides and sulfates will be required of this facility.

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Interim Effluent Limits:**OUTFALL 001**

Interim limits shall become effective on the effective date of the permit and expire one year from the effective date of the permit in order for the facility to upgrade to a continuous recorder.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
CBOD ₅	12.8	10 mg/l	15 mg/l	Based on the Lake Pontchartrain Basin segment 0402 Areawide Policy
TSS	19.3	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia		Report	Report	Because of the impairments of Bayou Manchac a limitation for ammonia has been place in the permit.
Nitrogen		Report	Report	Because of the impairments of Bayou Manchac a report parameter for nitrogen has been place in the permit.
Phosphorus		Report	Report	Because of the impairments of Bayou Manchac a report parameter for phosphorus has been place in the permit.

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

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Final Effluent Limits:**OUTFALL 001**

Final limits shall become effective one year from the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
CBOD ₅	12.8	10 mg/l	15 mg/l	Based on the Lake Pontchartrain Basin segment 0402 Areawide Policy
TSS	19.3	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia		Report	Report	Because of the impairments of Bayou Manchac a limitation for ammonia has been place in the permit.
Nitrogen		Report	Report	Because of the impairments of Bayou Manchac a report parameter for nitrogen has been place in the permit.
Phosphorus		Report	Report	Because of the impairments of Bayou Manchac a report parameter for phosphorus has been place in the permit.

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

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Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C)

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LAG570282: Issued: December 29, 2004
Expired: March 14, 2009

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	1/month	Measure
BOD ₅	10 mg/l	15 mg/l	1/month	Grab
TSS	15 mg/l	23 mg/l	1/month	Grab
Fecal Coliform Colonies	200	400	1/month	Grab

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

A review of the files indicates that no inspections have been conducted in the past two years.

B) Compliance and/or Administrative Orders

A review of the files indicates that no compliance orders have been issued against the facility in the past two years.

C) DMR Review

A review of the discharge monitoring reports for the period beginning **June 2007** through **June 2009** has revealed the following violations:

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Period of Excursion	Parameter	Outfall	Permit Limit	Reported Quantity
February 2009	BOD	001	10 mg/l	12.6 mg/l
December 2008	BOD	001	10 mg/l	14.5 mg/l
	BOD		15 mg/l	16 mg/l

XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved

- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.154 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.154 \text{ MGD} \times 10 \text{ mg/l} = 12.8 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between **0.1** and **0.5** MGD.

Effluent CharacteristicsMonitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
CBOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Dissolved Oxygen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

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XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to revoke and reissue a permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Wastewater Treatment Utilities, Inc, Manchac Place, June 18, 2009.